

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 6,905,848 B2
DATED : June 14, 2005
INVENTOR(S) : Nancy D. Hanson et al.

Page 1 of 3

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 4,

Line 10, delete "Science, ," and insert -- Science, 230 --.

Column 6,

Line 60, delete "TIT" and insert -- TTT --.

Column 8,

Line 66, delete "GTO" and insert -- GTG --.

Column 23,

Line 41, delete "bad" and insert -- had --.

Column 26,

Line 4, delete "broth." and insert -- broth --.

Columns 29 and 30,

Table 9 - continued, after "^b Resistance to CAZ; ceftazidime, ATM; aztreonam, SXT; trimethoprim/sulfamethoxazole, G; gentamicin." insert the following:

Conjugation Experiments.

The following strains were selected for conjugation with *E. coli* C600N. *E. aerogenes* 187 producing an enzyme with a pl of 6.8 resembling SHV-3; *E. aerogenes* 200 and *E. aerogenes* 220 producing enzymes with pls of 7.8 resembling SHV-4; and *E. aerogenes* 184 producing an enzyme with a pl of 8.2 resembling SHV-5. All the strains also possessed an inducible Bush group 1 beta-lactamase with a pl of 8.3. A plasmid of approximately 50 kb was transferred from *E. aerogenes* 187, *E. aerogenes* 200 and *E. aerogenes* 220 to *E. coli* C600N (Table 10, below). No plasmids were visualized in *E. aerogenes* 184 or its transconjugant *E. coli* JP04/tr (Table 10). Isoelectric focusing performed on the *Enterobacter* strains and their respective transconjugants showed the beta-lactamases resembling SHV-3, SHV-4 and SHV-5 present in both donors and recipients. The transfer of plasmids encoding SHV beta-lactamase genes into *E. coli* C600N was accompanied by resistance to gentamicin and trimethoprim/sulfamethoxazole and decreased susceptibility to cefotaxime, ceftazidime and aztreonam (Table 10).

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Columns 29 and 30 (cont'd).

Table 10. Characteristics of *Enterobacter* Strains and Respective Transconjugants

Strains ^a	Plasmids (approximate size, kilobases)	Beta-lactamases (pl)	Most likely Beta- lactamase
<i>E. coli</i> C600N	-	-	-
<i>E. aerogenes</i> 187	50, 10	8.3, 6.8	AmpC, SHV-3
<i>E. coli</i> JP01/tr	50	6.8	SHV-3
<i>E. aerogenes</i> 200	60, 50, 14	8.3, 7.8	AmpC, SHV-4
<i>E. coli</i> JP02/tr	50, 10	7.8	SHV-4
<i>E. aerogenes</i> 220	60, 50, 10	8.3, 7.8	AmpC, SHV-4
<i>E. coli</i> JP03/tr	50	7.8	SHV-4
<i>E. aerogenes</i> 184	-	8.3, 8.2	AmpC, SHV-5
<i>E. coli</i> JP04/tr	-	8.2	SHV-5

a *E. aerogenes* 187, 200, 220 and 184 were donors; *E. coli* C600N served as recipient and JP01, 2, 3 and 4 were the respective transconjugants

DNA Amplification

The strains used in the conjugation experiments were selected for amplification with PCR; *E. aerogenes* 187 (pl 6.8), *E. aerogenes* 200 (pl 7.8), *E. aerogenes* 220 (pl 7.8), *E. aerogenes* 184 (pl of 8.2) as well as their respective transconjugants *E. coli* JP01/tr (pl 6.8), *E. coli* JP02/tr (pl 7.8), *E. coli* JP03/tr (pl 7.8) JP04/tr (pl 8.2). Control strains producing SHV-3, SHV-4, SHV-5 and SHV-7 were used as positive controls while *E. coli* C600N was used as a negative control. A 781 base pair fragment specific for SHV beta-lactamases was amplified in *E. aerogenes* 187, *E. aerogenes* 200, *E. aerogenes* 220, *E. aerogenes* 184 and their respective transconjugants as well as the positive controls (Table 10, above). No amplification was observed with *E. coli* C600N (Table 10). Therefore, the ESBLs produced by these strains are indeed derivatives of an SHV beta-lactamase.

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Columns 29 and 30 (cont'd).

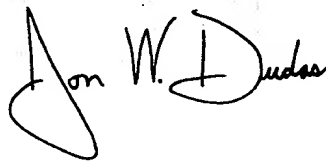
The complete disclosures of the patents, patent documents, and publications cited herein are incorporated by reference in their entirety as if each were individually incorporated. Various modifications and alterations to this invention will become apparent to those skilled in the art without departing from the scope and spirit of this invention. It should be understood that this invention is not intended to be unduly limited by the illustrative embodiments and examples set forth herein and that such examples and embodiments are presented by way of example only with the scope of the invention intended to be limited only by the claims set forth herein as follows.

Sequence Listing Free Text

SEQ ID NO:1 - 45 Primer

Signed and Sealed this

Twenty-first Day of February, 2006

A handwritten signature in black ink, appearing to read "Jon W. Dudas", is written over a faint rectangular stamp area.

JON W. DUDAS
Director of the United States Patent and Trademark Office